Owner's Manual

SETTING UP INSTRUCTIONS
PARTS LIST

McCORMICK

(Also McCormick-Deering)

No. 100 Tractor Manure Spreader

INTERNATIONAL HARVESTER COMPANY

180 North Michigan Ave. Chicago 1, Illinois, U.S.A.

INSTRUCTIONS FOR SETTING UP

(Operating Instructions are on page 17)

Remove all wires and arrange parts conveniently.

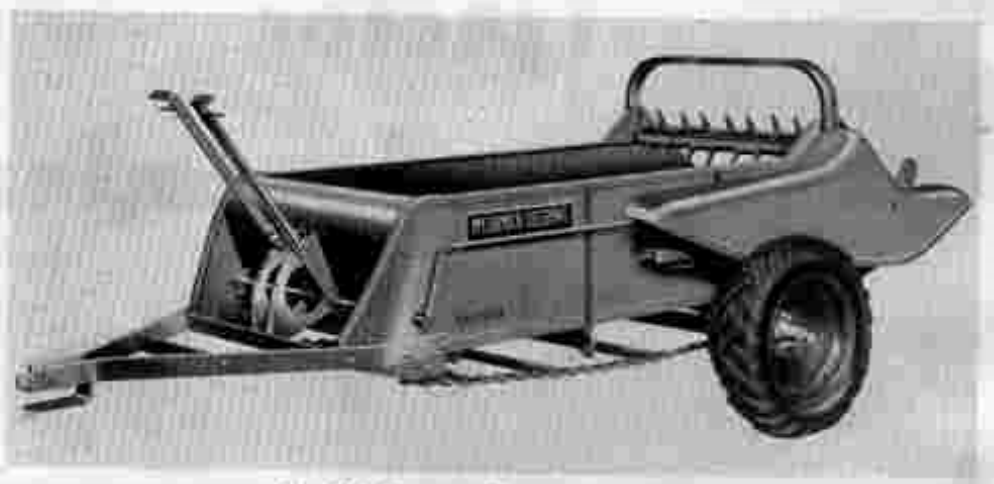
Lubricate all bearings and moving parts as you proceed, and see that they work freely. Use kerosene to cut the paint on bearing parts, if necessary.

Bolts must be used in the holes in which they are found, or in parts to which they are attached, unless otherwise shown.

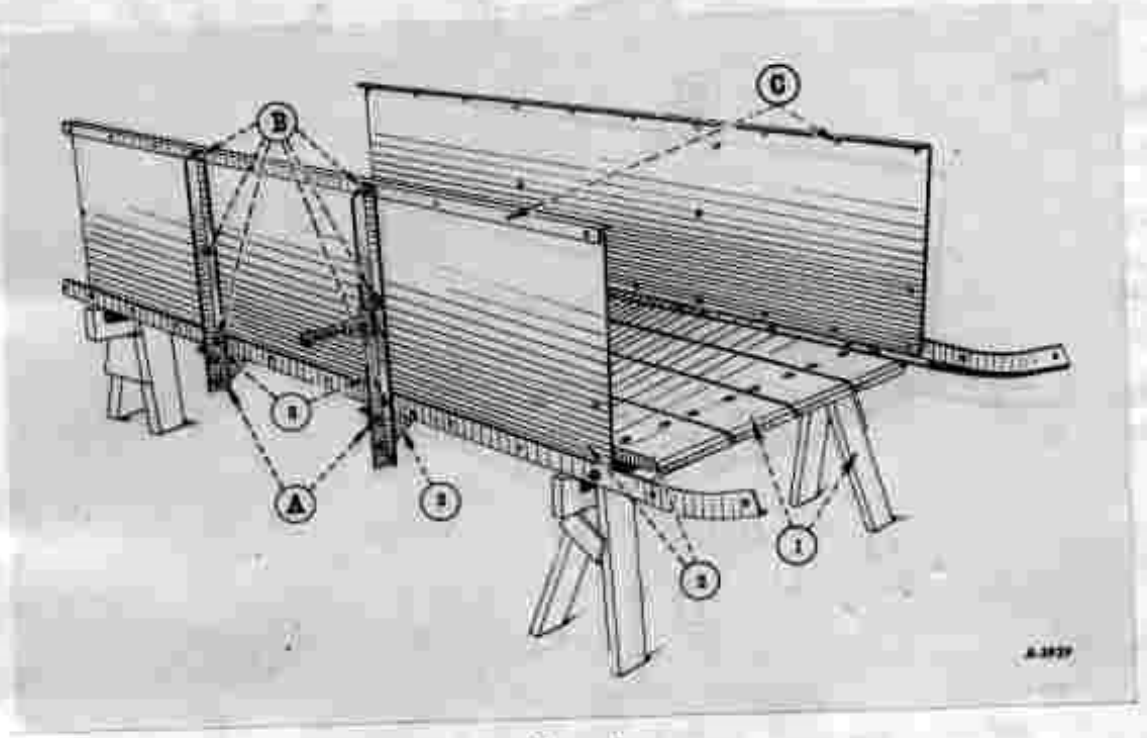
Shaded portions in the illustrations show parts to be assembled; these must be placed on the machine in the order numbered.

Wherever the terms "left" and "right" are used, it should be understood to mean from a position behind and facing the machine.

We reserve the right to make changes or improvements in the design or construction of any part without incurring the obligation to install such changes on any machine previously delivered.



No. 100 Tractor Manure Spreader.



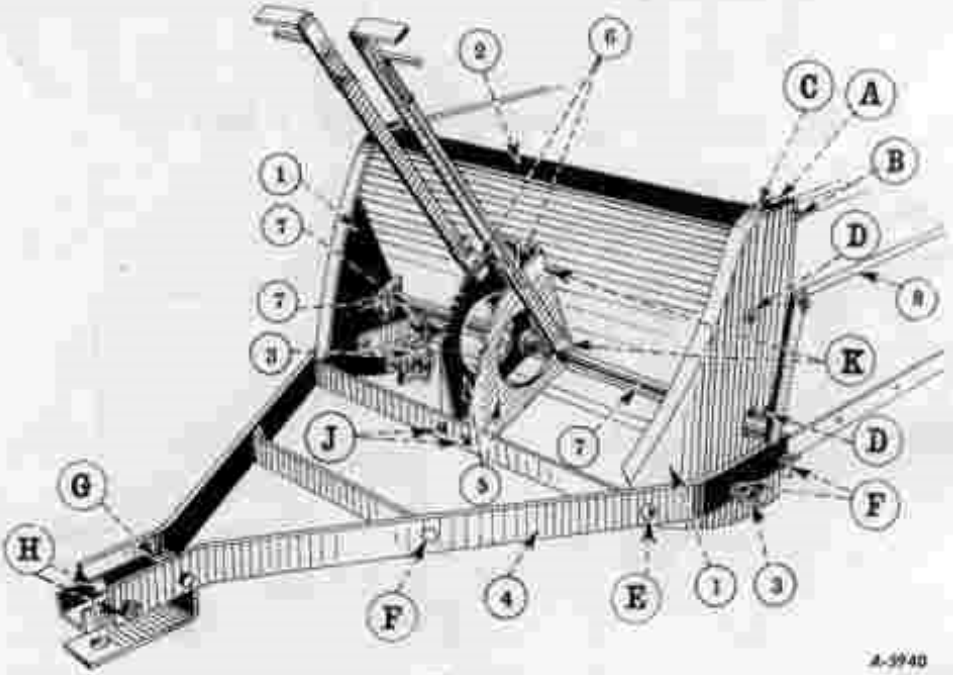
Illust. 1

1. Place bottom on wooden horses about 19" high and remove filler boards, right and left.

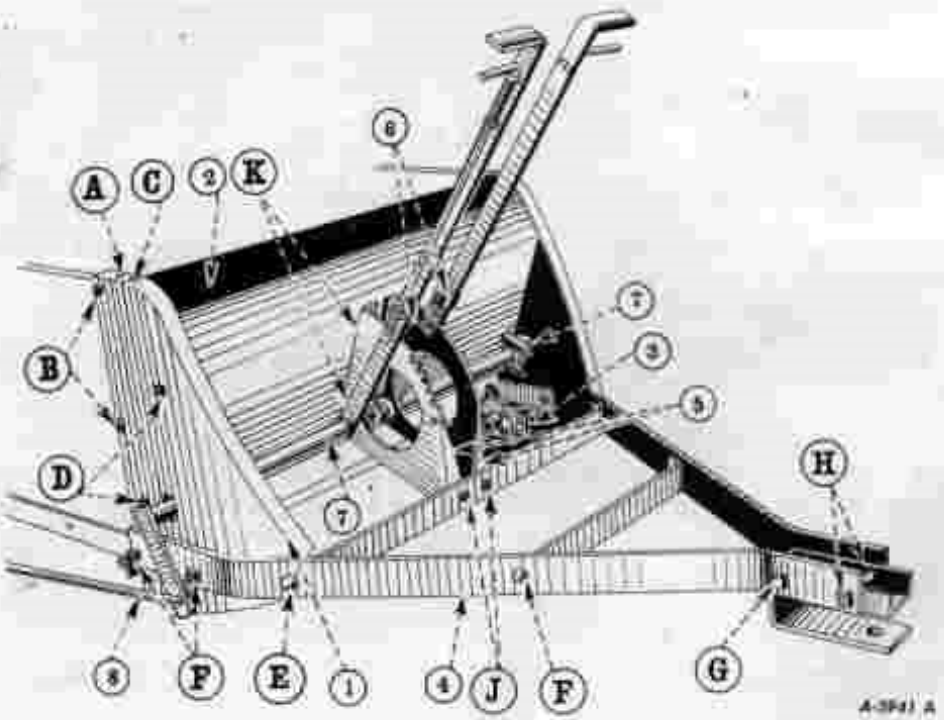
2. Attach sides and side angle gussets to bottom with 3/8 x 7/8" machine bolts.

3. Attach angles to sides and gussets, using 3/8 x 7/8" machine bolts at "A" and 3/8 x 7/8" carriage bolts at "B", placing angle with stud on left rear side.

4. Place 3/8 x 1/2" machine bolts at "C".



Illust. 2



Illust. 2A

See Illusts. 2 and 2A

1. Attach side sheet supports, right and left, with 3/8 x 1" carriage bolts at "A" and 3/8 x 7/8" carriage bolt at "B". *Leave bolts loose.*

2. Attach front end gate to side sheet supports with 3/8 x 3/4" carriage bolts at "C" and 3/8 x 3/4" machine bolts at "D". *Leave bolts loose.*

3. Attach apron tighteners, complete, to side sheets with 3/8 x 1" machine bolts and 7/16" I.D. x 1" O.D. x 16 ga. washers. Insert straight lubrication fittings into apron sprockets.

4. Attach drawbar frame as illustrated, using 1/2 x 1 5/8" carriage bolts at "E", 1/2 x 1 1/2" carriage bolts at "F", 1/2 x 4 1/2" machine bolt at "G", and 1/2 x 1 1/4" machine bolts at "H".

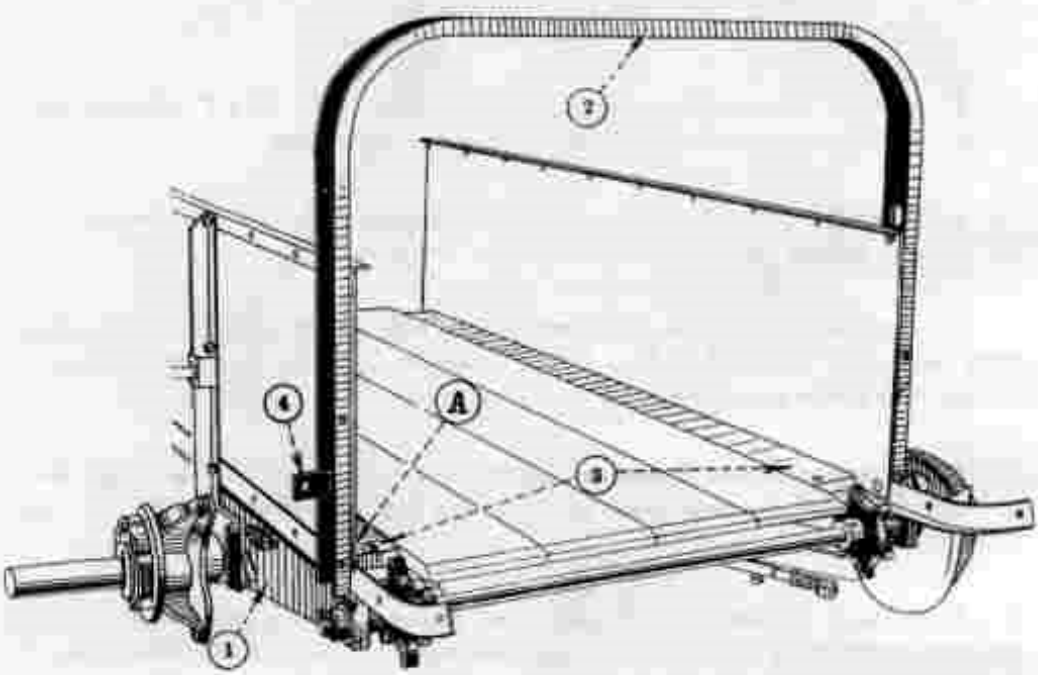
5. Attach sectors to end gate and drawbar brace, rear, with 3/8 x 1" machine bolts at "J" and 3/8 x 7/8" machine bolts at "K". *Leave bolts loose.*

6. Remove control rod guide and clip from lever.

7. Insert outer end of lever through hole in side plate, place inner half of bearing over pipe and insert inner end of lever through sector and secure with 1/4 x 1 3/4" cotter. Place outer half of bearing over pipe and secure with 3/8 x 3 1/4" machine bolts. Replace control rod and clip.

Tighten all bolts.

8. Attach chain raising rod and feed rod to levers and secure with 3/16 x 1" cotter. *See Illust. 2A also.*



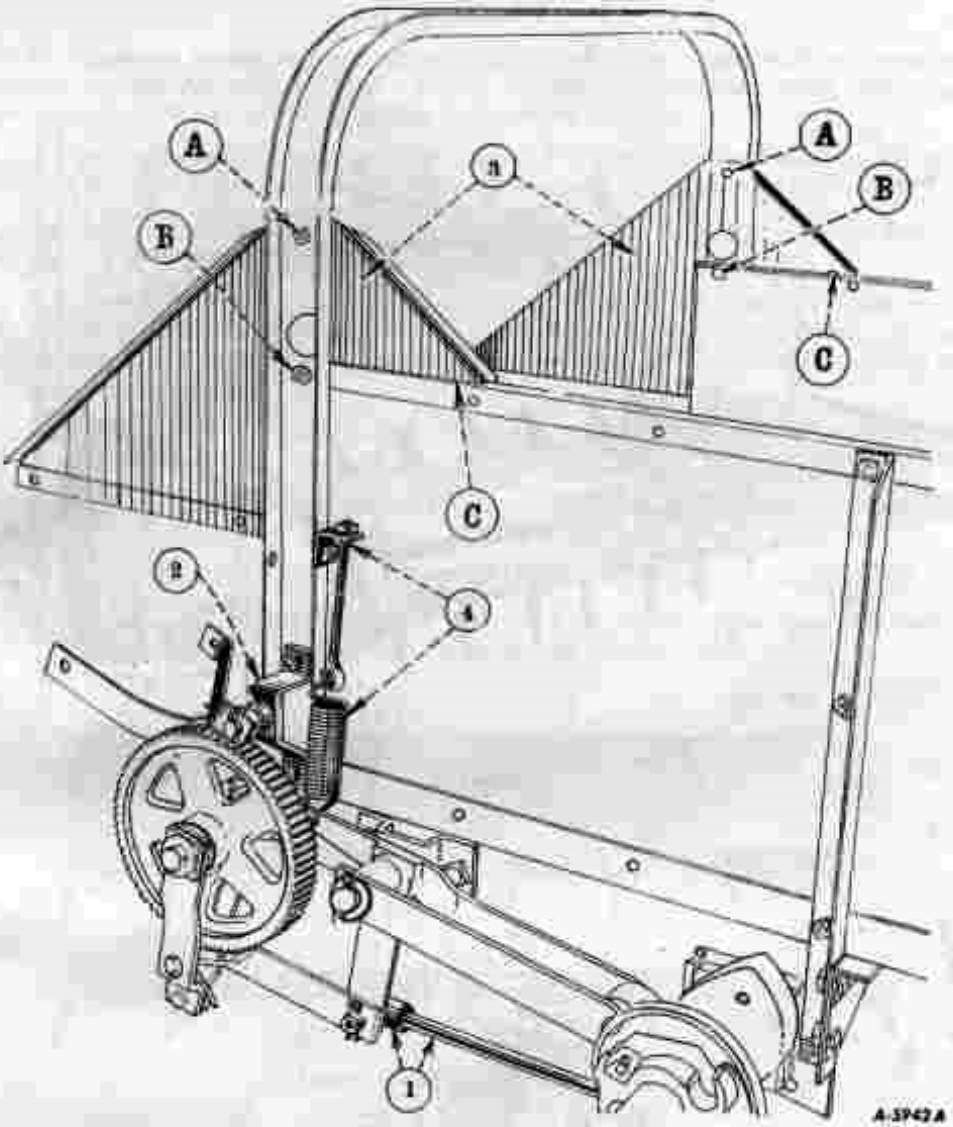
Illust. 3

1. Attach axle brackets, right and left, with axle and rear apron shaft in place, to bottom angles with $\frac{3}{8}$ x $\frac{3}{8}$" machine bolts.

2. Attach arch to sides with $\frac{3}{8}$ x $\frac{7}{8}$" carriage bolts at "A".

3. Replace filler boards, right and left.

4. Attach chain raising yoke brace bracket with $\frac{3}{8}$ x 1" carriage bolt.



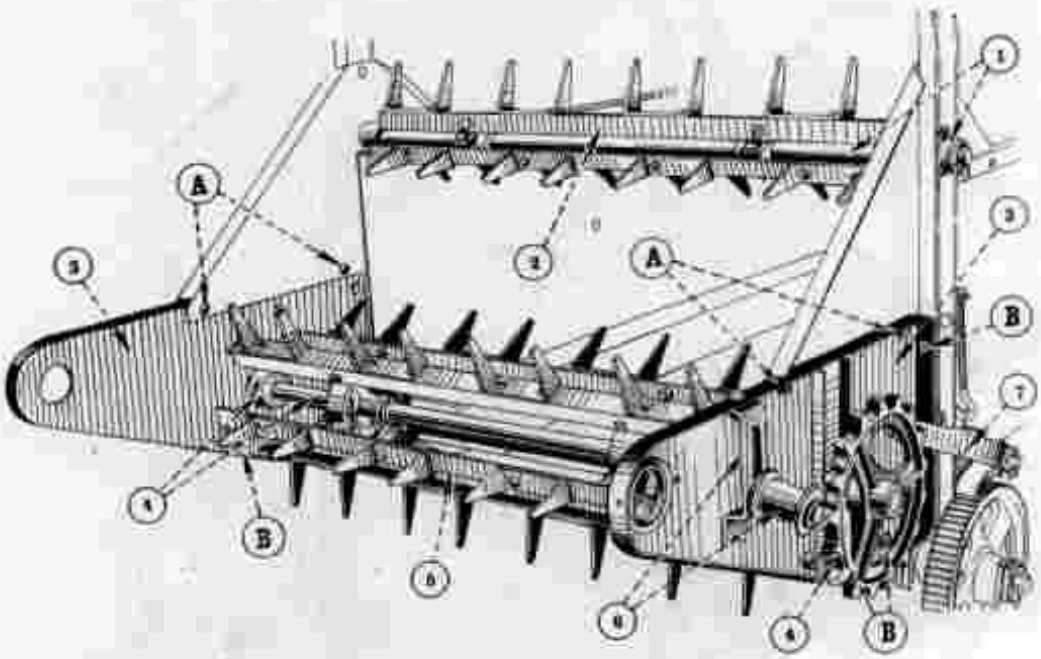
Illust. 4

1. Attach adjusting feed rod, swivel and spring to feed roller arm. Insert 67½° lubricating fitting into under side of swivel.

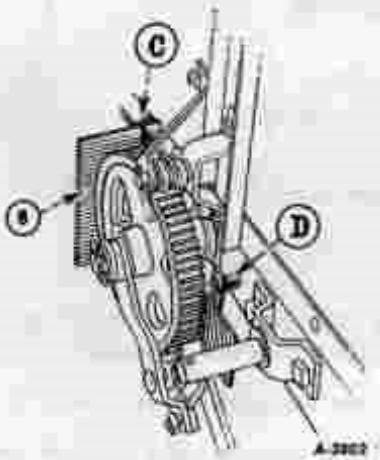
2. Attach pawl bracket assembly to arch with ⅜ x 1" carriage bolts.

3. Attach upper cylinder guards, right and left, with 5/16 x ⅝" carriage bolts at "A", ⅜ x ⅞" carriage bolts at "B", and 5/16 x ½" carriage bolts at "C".

4. Attach feed cam arm return spring and clip to arch with ⅜ x ¾" machine bolt. Adjust spring tension.



Illust. 5



Illust. 5A

See Illust. 5

1. Remove boxes and put upper cylinder shaft in place; replace boxes and washers and secure with cotters. Insert straight lubricating fitting into upper right box and 30° lubricating fitting into upper left box.

2. Attach cylinder rails to cylinder head in the rotation *shown in Illust. 6. All rails must be located consecutively, with vertical legs of angles toward the rear.*

3. Attach rear side plates, right and left, with 5/16 x 5/8" carriage bolts at "A" and 3/8 x 3/4" machine bolts at "B".

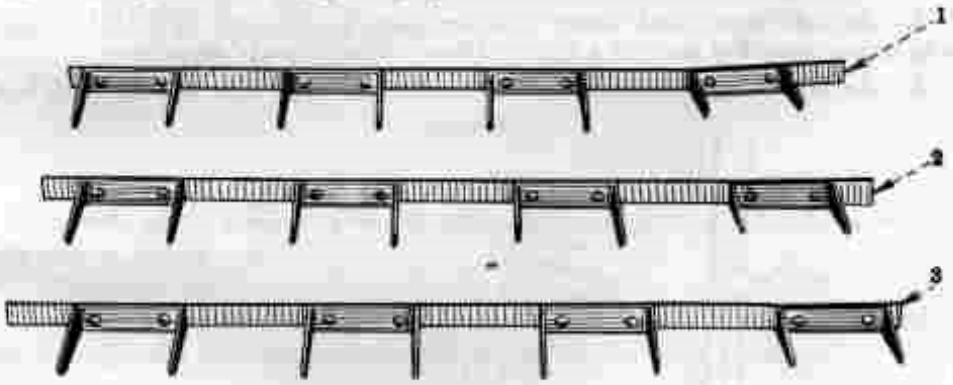
4. Remove boxes and put lower cylinder shaft in place; replace boxes and washers. Attach sprocket with 1/4 x 1 5/8" "Groov" pin. Insert straight lubricating fitting into lower side of right box and 30° lubricating fitting into left box.

5. Attach cylinder rails to cylinder head in the rotation *shown in Illust. 6A. All rails must be located consecutively, with vertical legs of angles toward the rear.*

6. Attach spiral drive chain tightener bracket with spool to side plate with 5/8 x 1" machine bolt and 7/16 x 1" x 16 ga. washer.

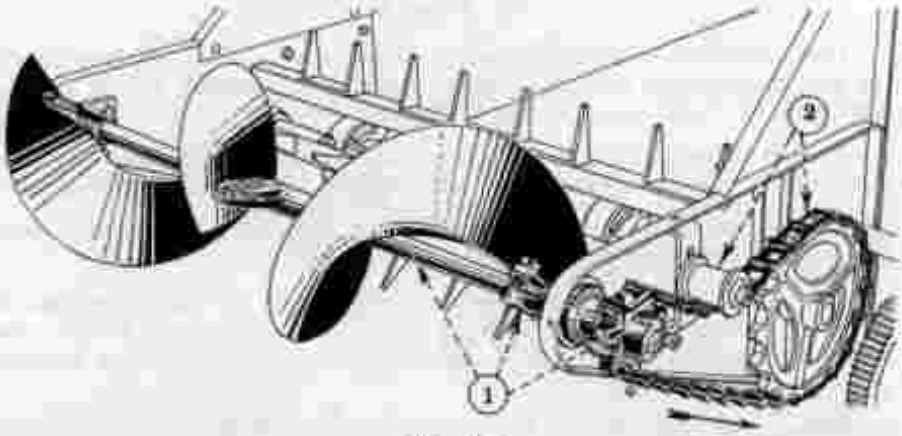
7. Attach pawl bracket brace to side plate with 3/8 x 7/8" machine bolt.

8. Attach inner ratchet shield with 3/8 x 7/8" machine bolt at "C" and 3/8 x 1 3/4" machine bolt with 3/8" long spacer at "D". *See Illust. 5A.*



Illust. 6—Upper cylinder rails.

Illust. 6A—Lower cylinder rails.



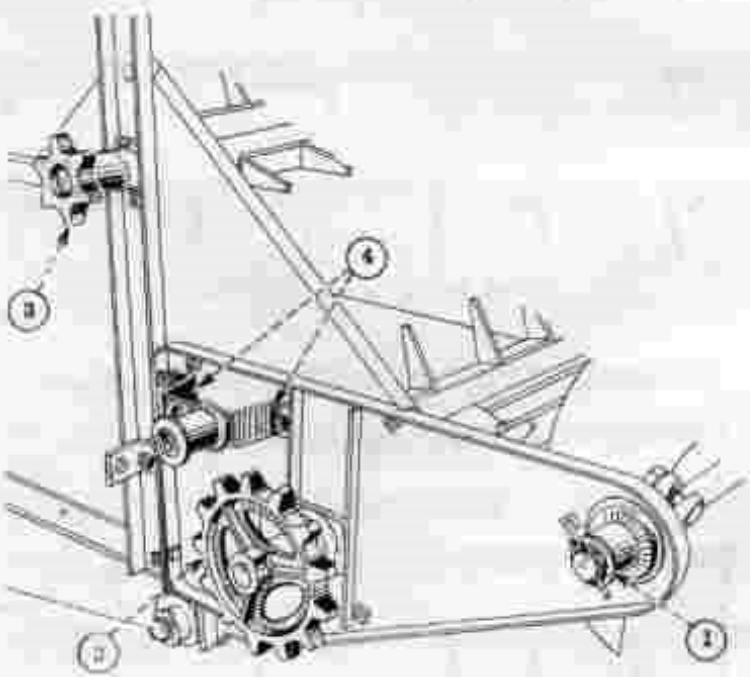
Illust. 7

1. Remove boxes and sprocket; put spiral in place. Replace boxes and sprocket, secure sprocket to shaft with $\frac{5}{16}$ x $1\frac{3}{4}$" "Groov" pin. Insert 90° lubricating fittings into lower side of right and left boxes. *See Illust. 7A also.*

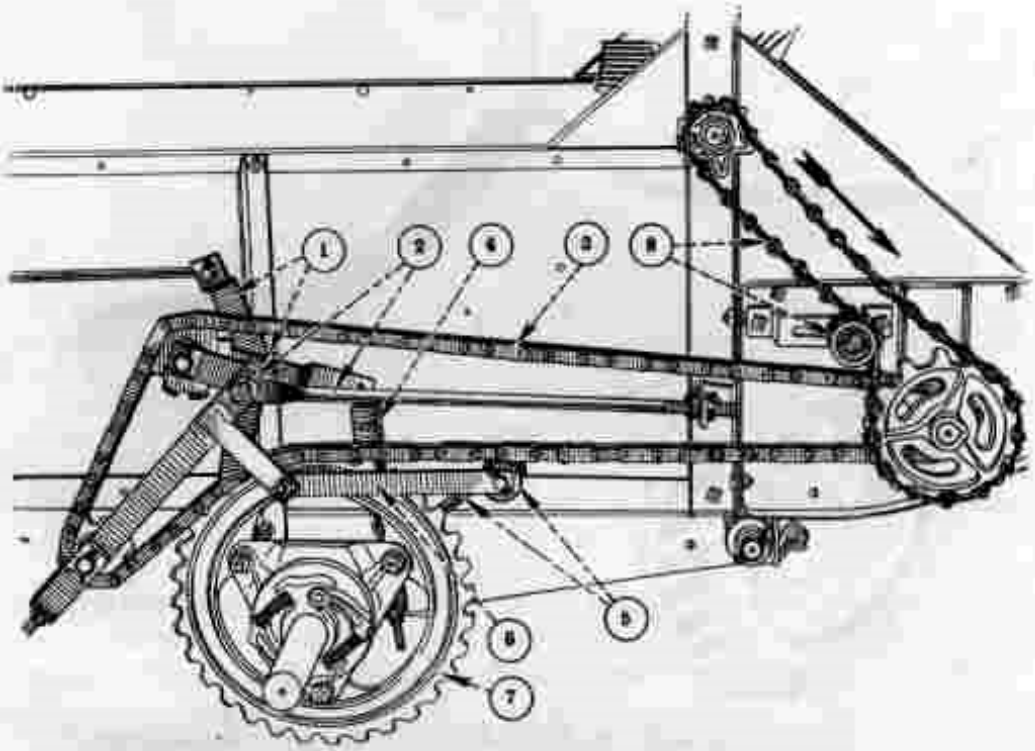
2. Put on spiral drive chain *so that hooks will run forward with slot side out.* Adjust chain tightener.

3. Attach upper and lower cylinder sprockets, using $\frac{1}{4}$ x $1\frac{3}{4}$" "Groov" pin in upper sprocket and $\frac{1}{4}$ x $1\frac{5}{8}$" "Groov" pin in lower sprocket.

4. Attach chain tightener bracket and spool with $\frac{3}{8}$ x $\frac{3}{4}$" machine bolts.



Illust. 7A



Illust. 8

1. Slide chain raising assembly over stud, and at the same time, connect chain raising rod to arm.

2. Slide spacer over stud and attach chain raising yoke brace. Adjust chain raising yoke idler sprocket to line up with main drive sprocket.

3. Place chain over sprockets and couple chain with connecting links.

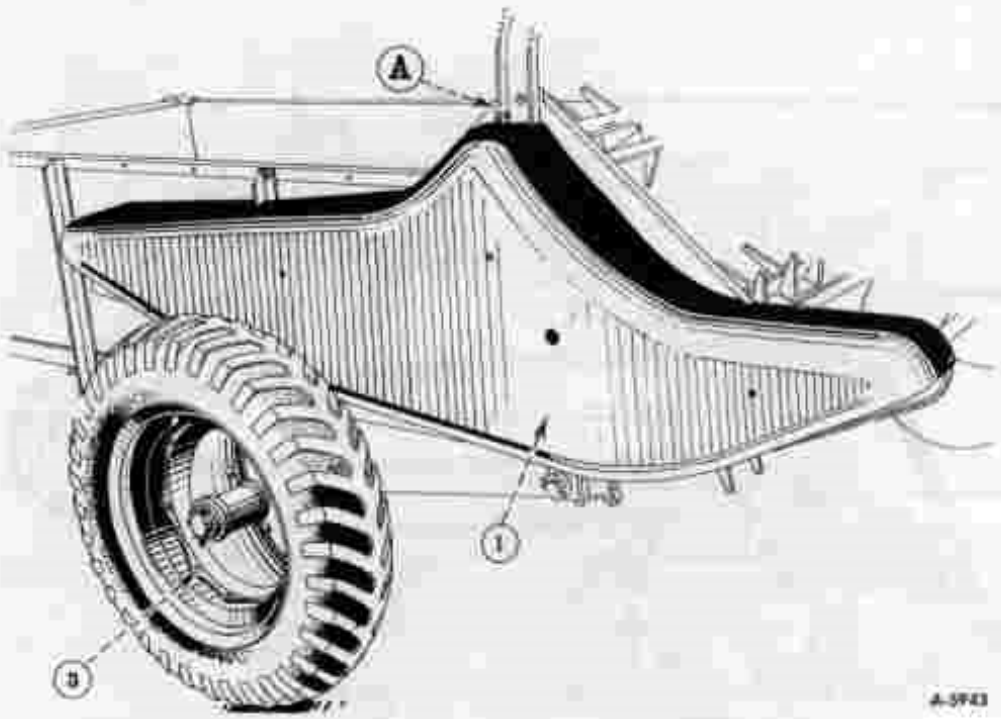
4. Connect spring to idler yoke and lower clip, and adjust eyebolt so spring has a slight tension when mechanism is in disengaged position.

5. Place roller on throw-out crank and insert crank into crank bearing.

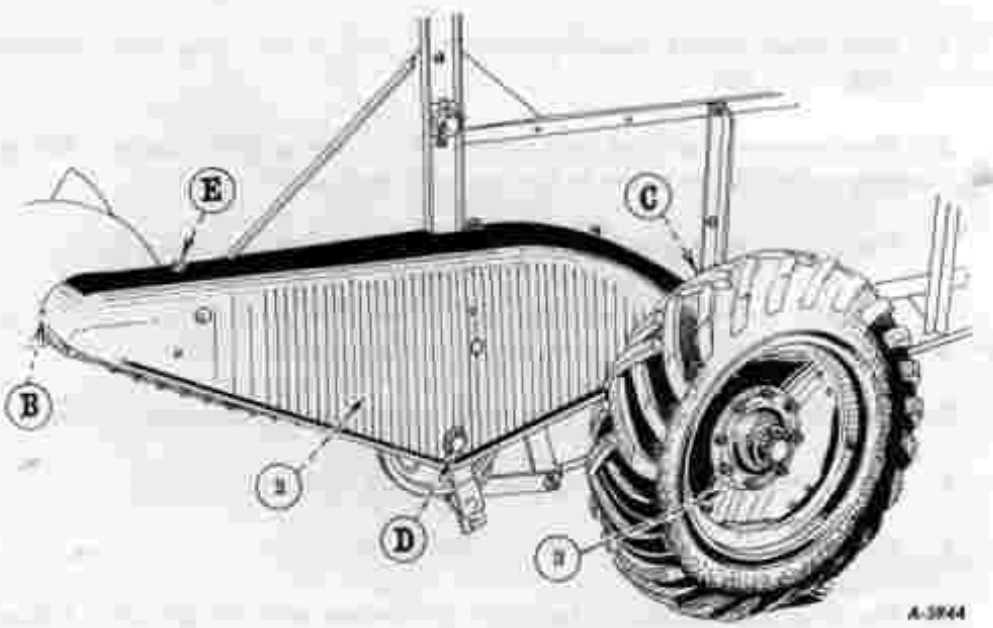
6. Attach connecting link to throw-out crank and control arm.

7. Attach sprocket to hub with ⅜ x 2" machine bolts.

8. Put on cylinder chain so *that hooks run forward with slot side out.* Adjust chain tightener.



Illust. 9



Illust. 10

See Illusts. 9 and 10

1. Attach chain raising shield with ¼ x ½" slotted head screws at "A".

2. Attach ratchet shield with ¼ x ½" slotted head screws at "B" and ⅜ x ⅞" carriage bolt at "C", using notched washer and ⅛ x 1¾" cotter at "D".

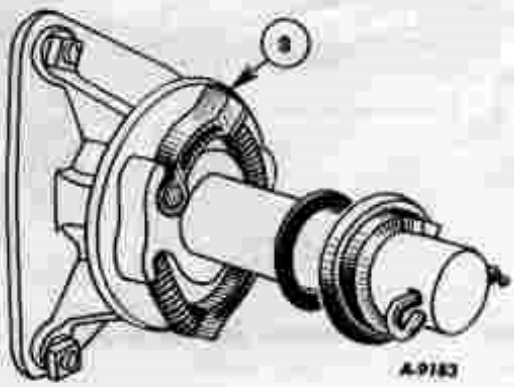
NOTE: Before attaching shield, remove bolt "E" and assemble through shield.

3. Put pawl springs in place and attach wheels with step washer and linch pin. *See Illust. 10A also.*

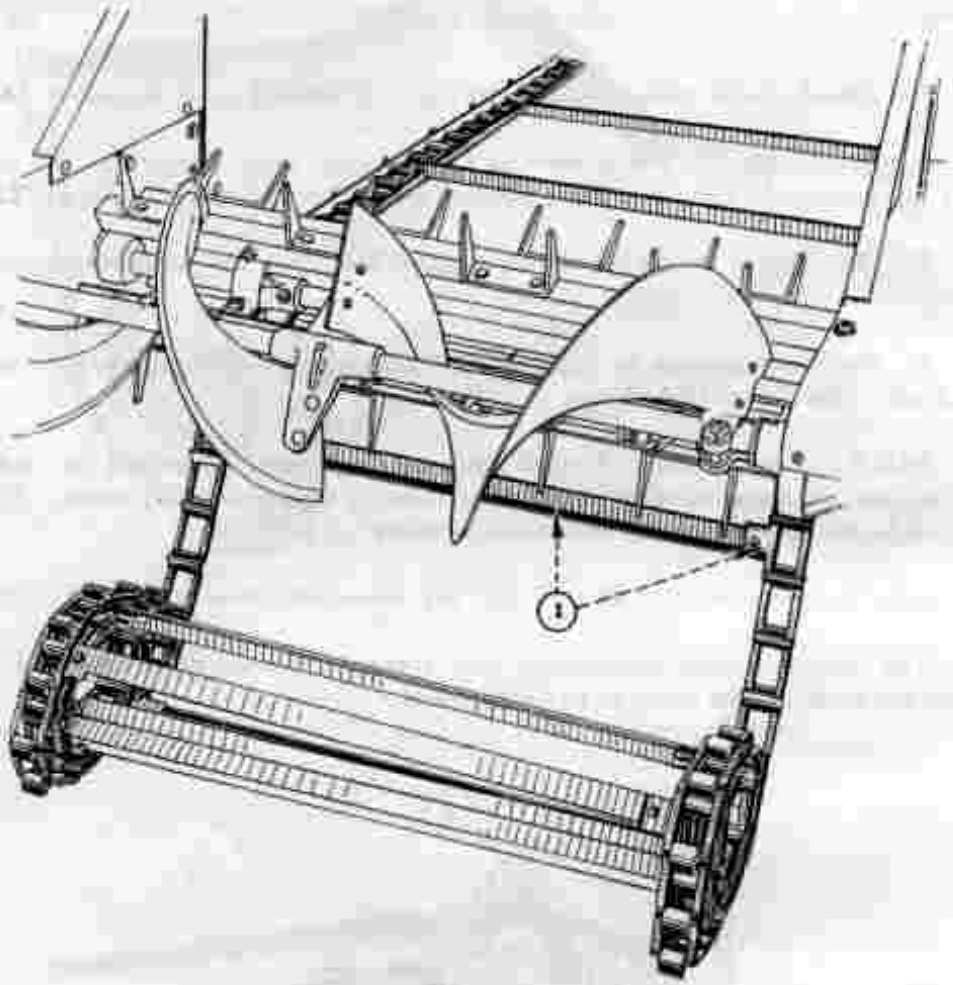
NOTE: Keep wheels adjusted with take-up washer provided for outer end of rear wheels so as to have not more than 1/16" end play at all times. This should be checked frequently to prevent breakage of pawl plate.

Inflation pressure for 5.50 x 16 four-ply pneumatic tires should be 32 lbs.

Tire manufacturers recommend that transport speeds do not exceed 20 miles per hour on this grade of tire equipment.



Illust. 10A

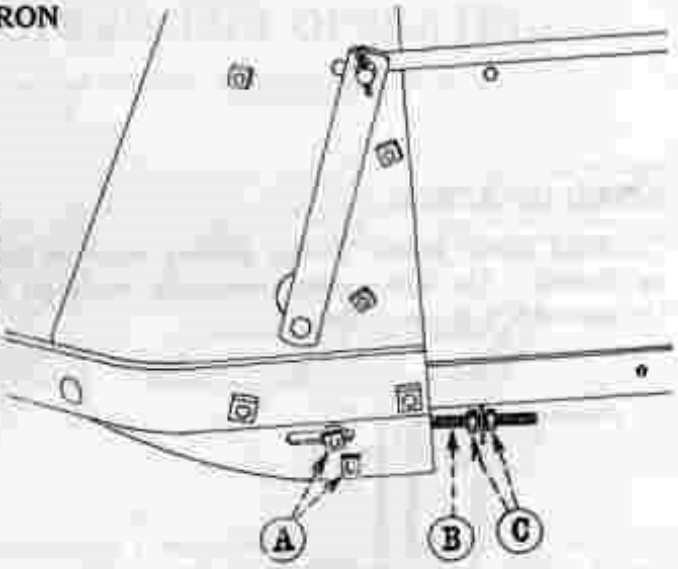


Illust. 11

1. Put on apron so that *vertical legs of angle bars are toward the rear.* Connect apron chain.

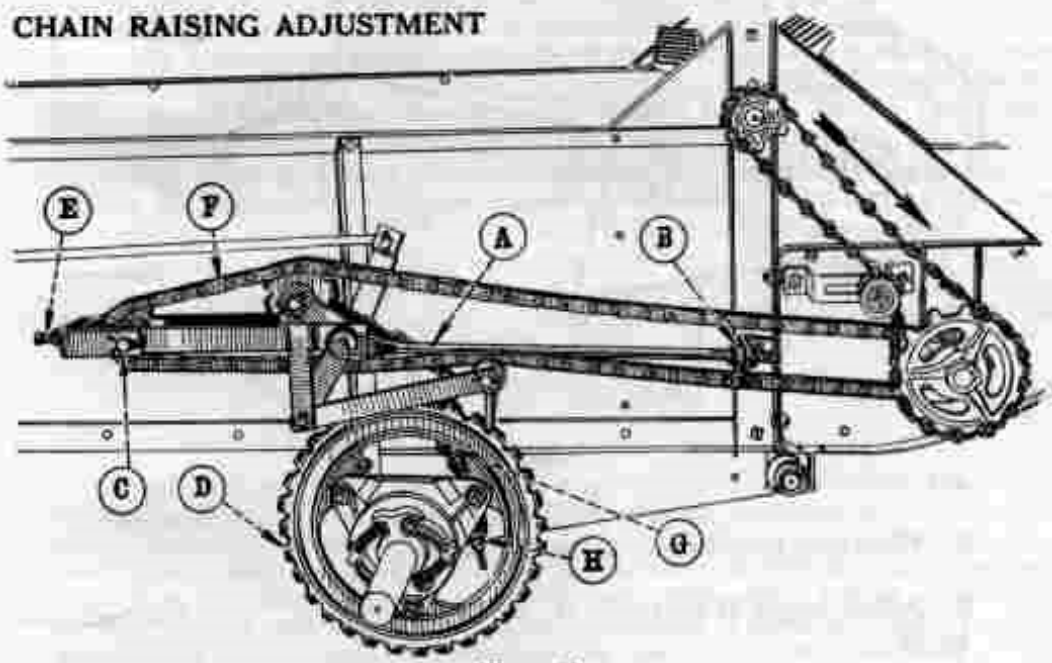
ADJUSTING DRAG APRON

To adjust drag apron, loosen nuts at "A", adjust bolt "B" until chain has proper tension, then tighten lock nuts "C" and "A".



Illust. 12

CHAIN RAISING ADJUSTMENT

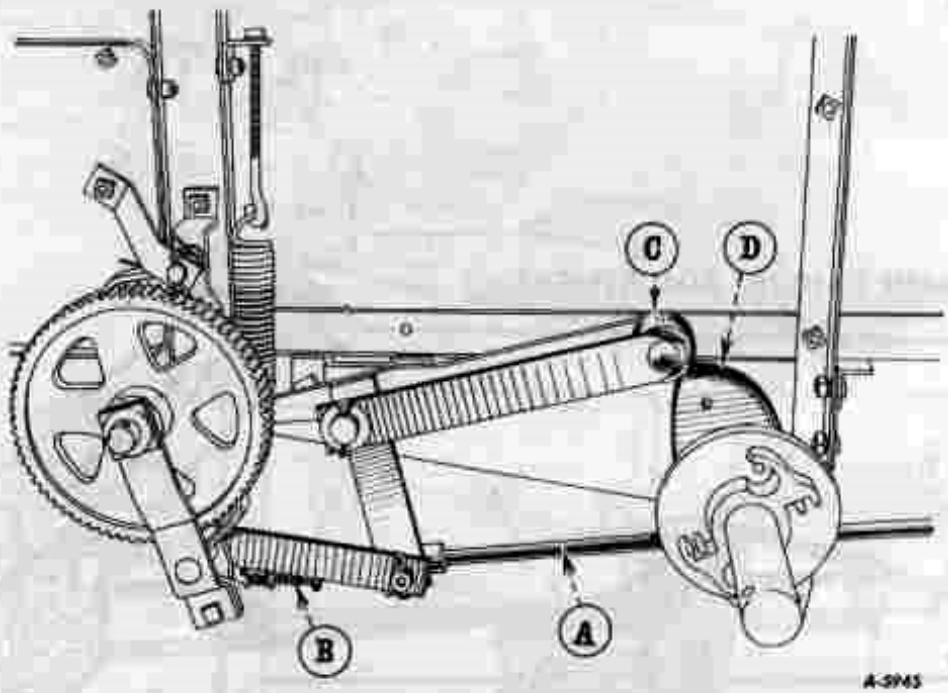


Illust. 13

1. Adjust chain raising yoke brace "A" at "B" to line up sprockets "C" and "D".
2. Adjust capscrew "E" to obtain proper tension on roller chain "F".
3. Adjust idler bracket tension spring "G" at "H".

SPEED OF APRON

Five apron speeds permit placing more or less manure on certain spots as desired. The drive cam constantly regulates the quantity of flow while the spreader is in operation.



Illust. 14

1. Place feed lever in rear notch of quadrant.

2. Adjust length of feed rod "A" at "B" so roller "C" will clear feed cam "D" by 1/8".

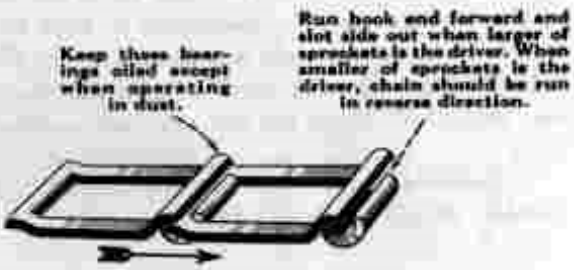
INSTRUCTIONS FOR OPERATING

☞ *Do not throw the spreader in gear while the machine is in motion.*

CHAINS

Run all chains with the hooks forward and slot side out, *except the apron chains, which should be run as shown in Illust.15.*

To detach chain, bend to coupling position, and strike light blows.


Keep these bearings oiled except when operating in dust.
Run hook end forward and slot side out when larger of sprockets is the driver. When smaller of sprockets is the driver, chain should be run in reverse direction.

Illust. 15

HOW TO LOAD

Before loading, always be sure the feed lever on the right side of the spreader is in neutral. In freezing weather, check to see that the apron is not frozen to the bed.

In order to get the best results, both as to spreading manure evenly on the ground and to avoid heavy draft, the machine should be loaded at the forward end of the box first, and continue loading toward the rear end until the cylinder is reached, being careful not to force the manure against the cylinder. This will allow the cylinder to start easy and the machine will draw much easier when loaded in this manner, as the manure is more easily separated.

When ready to spread, *stop the tractor* and put the drive chain in gear by moving the left lever to the lower notch in the sector. Then set the feed lever (on right side) in Notch 1, 2, 3, 4, or 5 for the desired amount to spread.

When the load is almost all spread, a little manure will remain in the bed. To clean this out, disengage the drive and shift the lever into high feed. When the machine is empty, disengage the feed. Make this a regular practice so the feed will always be disengaged when the machine is empty.

GOOD CARE—LUBRICATION

Good care of a machine will save a good deal of expense and time. The manure spreader, above all other machines used on the farm, is subject to the worst conditions. Spreaders are often left in the field or yard, exposed to all conditions of weather, without attempting to clean or lubricate them properly. A machine should be stored in the shed or barn, and before storing away should be well cleaned and lubricated. A little kerosene is good occasionally on the apron links and the main bearings of the machine, afterwards using a little heavy lubricant, as the lye and acids which come from the manure are very severe on the metal parts, causing the steel to rust. Always use plenty of lubricant. It will increase the life of your machine. Before using, lubricate all parts well, such as the main axle bearings, cylinder bearings, apron drive shaft and widespread spiral boxes, and also see that all joints on the chain are well lubricated. This will make the apron run easier and prevent the links from rusting.

PARTS LIST AND ILLUSTRATIONS

The following pages contain parts list and illustrations of "exploded" views of the various units disassembled so that parts wanted may be readily located. Reference numbers only are shown in the illustrations and, to avoid errors and delays, *when ordering parts always use the regular "Part Number" shown with the "Ref. No.". Do not use reference numbers when ordering parts.*

Standard parts such as bolts, nuts, washers, cotters, etc., having no part number, should be ordered by size.

INDEX TO UNITS

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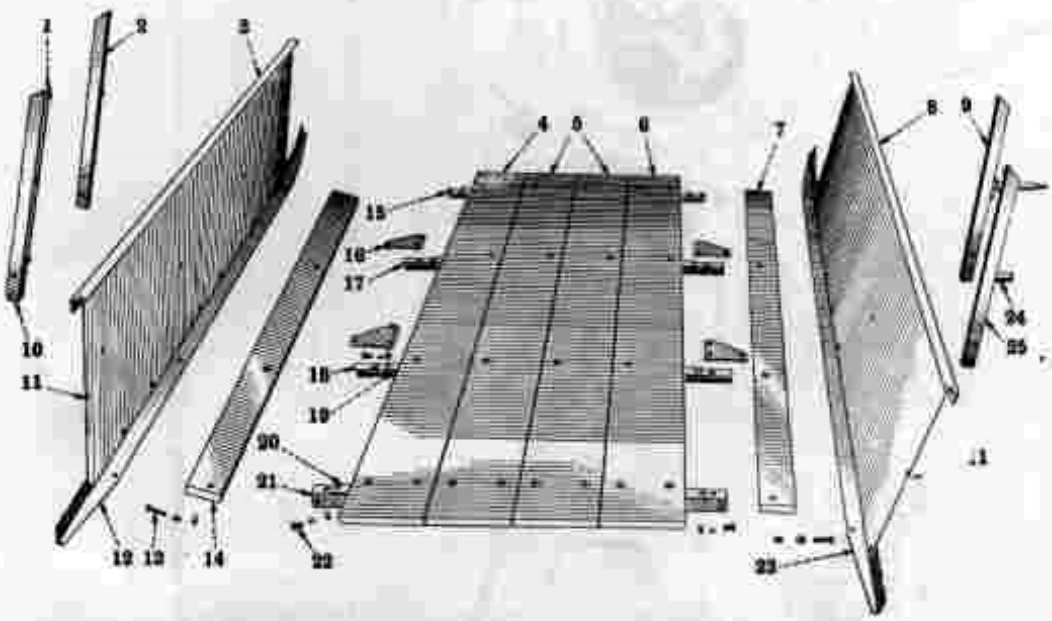
Numerical Index to Part Numbers will be found on page 30.

BOTTOM AND SIDES



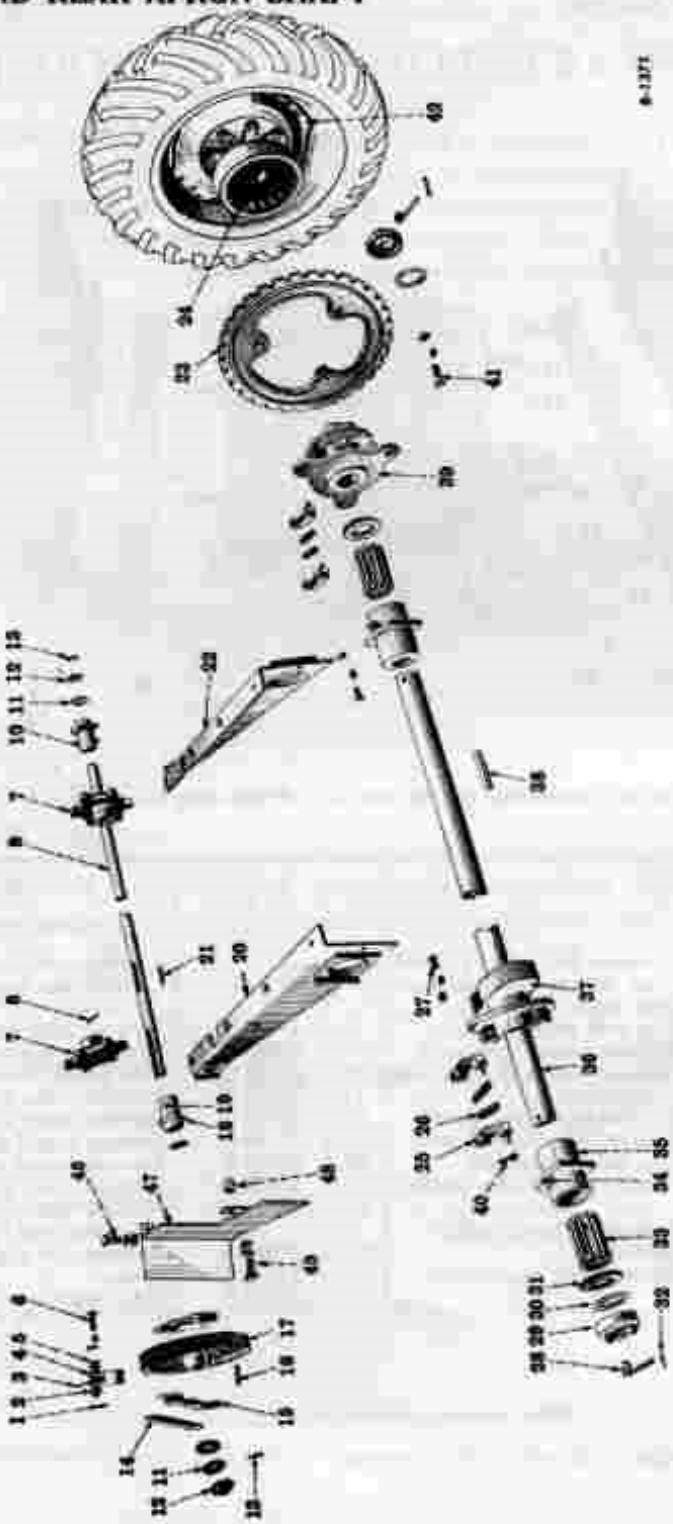
Unnumbered parts in the illustrations are the same as corresponding parts shown with numbers.

Ref. No.	Part No.	DESCRIPTION	Ref. No.	Part No.	DESCRIPTION
1	.....	Carriage bolt, 5/16 x 3/4" (with sq. nut and lockwasher).	13	.....	Carriage bolt, 3/8 x 1 1/4" (with sq. nut and lockwasher).
2	23594 S	Side angle, rear, right.			
3	23575 SA	Top side angle, right.	14	23588 SA	Bottom filler board, right.
4	23586 SA	Bottom board (grooved).	15	23583 S	Bottom cross angle, No. 4.
5	23585 SA	Bottom board (tongue and grooved).	16	23591 S	Side angle gusset.
			17	23582 S	Bottom cross angle, No. 3.
6	23587 SA	Bottom board (tongued).	18	23581 S	Bottom cross angle, No. 2.
7	23589 SA	Bottom filler board, left.	19	23584 S	Bottom board spacer.
8	23576 SA	Top side angle, left.	20	23584 S	Bottom board spacer.
9	23598 S	Chain raising yoke bracket, cp.	21	23580 S	Bottom cross angle, No. 1.
			22	.....	Machine bolt, 5/16 x 3/4" (with sq. nut and lockwasher).
10	23592 S	Side angle front, right.			
11	23577 SA	Side sheet.	23	23579 S	Bottom side angle, left.
12	23578 S	Bottom side angle, right.	24	23648 S	Spacer.
			25	23593 S	Side angle front, left.

When ordering, always use Part Nos.

Don't order parts from the illustrations only; refer to the list also.

AXLE AND REAR APRON SHAFT



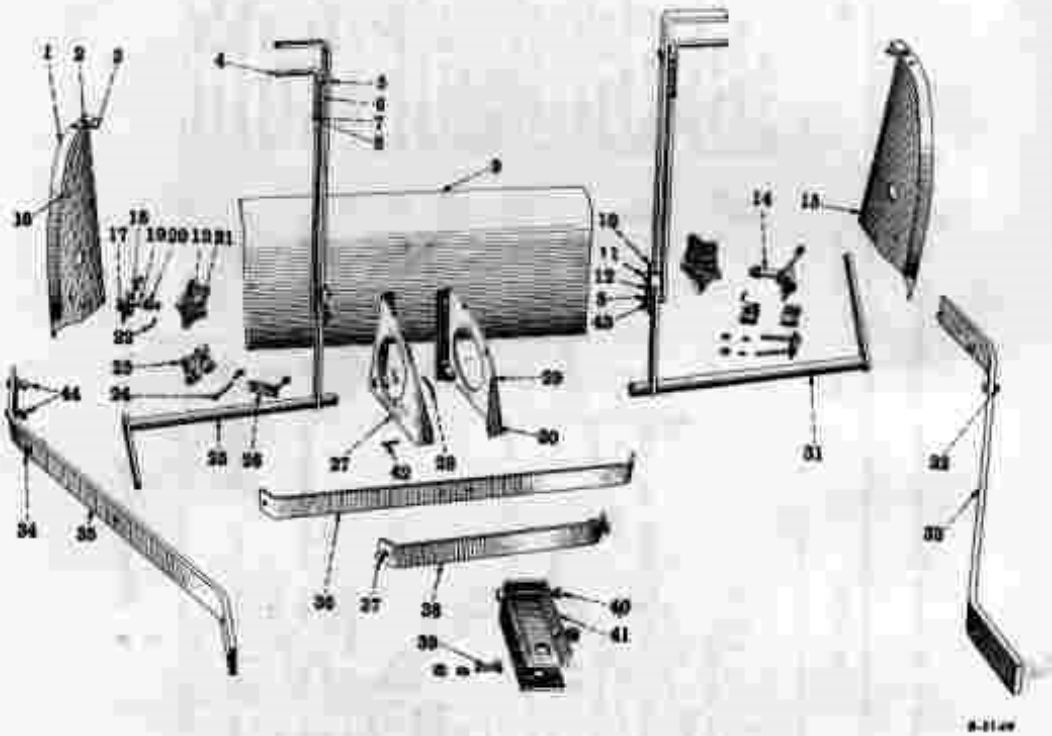
Index to Reference Numbers shown in illustration on opposite page

Ref. No.	Part No.	DESCRIPTION
1	.....	Cotter, 1/16 x 1 1/4".
2	Q 135	Washer, 11/16 x 21/32" x 22 ga.
3	23676 S	Driving pawl spring.
4	13002 S	Ratchet pawl.
5	PG 146	Pin, 5/32 x 3".
6	.....	Machine bolt, 1/16 x 1 1/4" (with sq. nut and lockwasher).
7	3349 S	Rear apron sprocket.
8	11023 F	"Groov" pin, 1/4 x 1 3/4".
9	23615 S	Rear apron shaft, 45 5/8" long.
10	3333 S	Rear apron shaft bearing.
11	Q 5036	Washer, 1 1/16" I.D. x 1 3/4" O.D. x 16 ga.
12	23616 S	End washer.
13	.....	Cotter, 1/4 x 1 5/8".
14	23620 S	Feed arm link.
15	23619 S	Ratchet yoke, cp.
16	Q 20	Key, 1/4 x 1/4 x 2 1/4".
17	3332 S	Ratchet wheel.
18	3333 S	Rear apron shaft bearing.
19	119 512	Lubrication fitting, 1/8", straight.
20	23672 SA	Rear apron shaft and axle support, right, cp.
21	2390 N	Key, 1/4 x 1/4 x 1 5/8".
22	23673 SB	Rear apron shaft and axle support, left, cp.
23	3343 SA	Main drive sprocket.
24	3342 S	Wheel hub.
25	715 SB	Driving pawl.
26	No. 76 DS	Flange pawl spring.
27	.....	Machine bolt, 3/8 x 1/8" (with sq. nut and lockwasher).
28	33033 S	Axle collar pin.
29	3341 S	Rear axle adjustable collar.
30	Q 3682	Washer, 1 29/32" I.D. x 2 9/16" O.D. x 12 ga.
31	23614 S	Washer, 1 35/64" I.D. x 3 1/4" O.D. x 16 ga.
32	.....	Cotter, 1/8 x 1/4".
33	ST 1200	Roller bearing.
34	109 353	Lubrication fitting, 1/8", 30° elbow.
35	3346 S	Axle bearing box.
36	23613 S	Main axle, 63 5/8" long.
37	3344 SB	Cam and pawl plate.
38	Q 3742	Taper key, 1/2 x 1/2 x 2 3/8".
39	3366 SB	Main drive sprocket hub and pawl plate.
40	Q 1191	Pin, 5/16 x 1 15/64".
41	.....	Machine bolt, 1/2 x 2" (with sq. nut and lockwasher).
42	23690 S	Disc and rim assembly (pneumatic tire wheel)
46	.....	Machine bolt, 5/16 x 3/8".
47	33046 S	Ratchet shield.
48	Y 14504	Spacer, 1/8" long.
49	.....	Machine bolt, 3/8 x 1 3/4".

When ordering, always use Part Nos.

Don't order parts from the illustrations only, refer to the list also.

FRONT END, LEVERS AND DRAWBAR



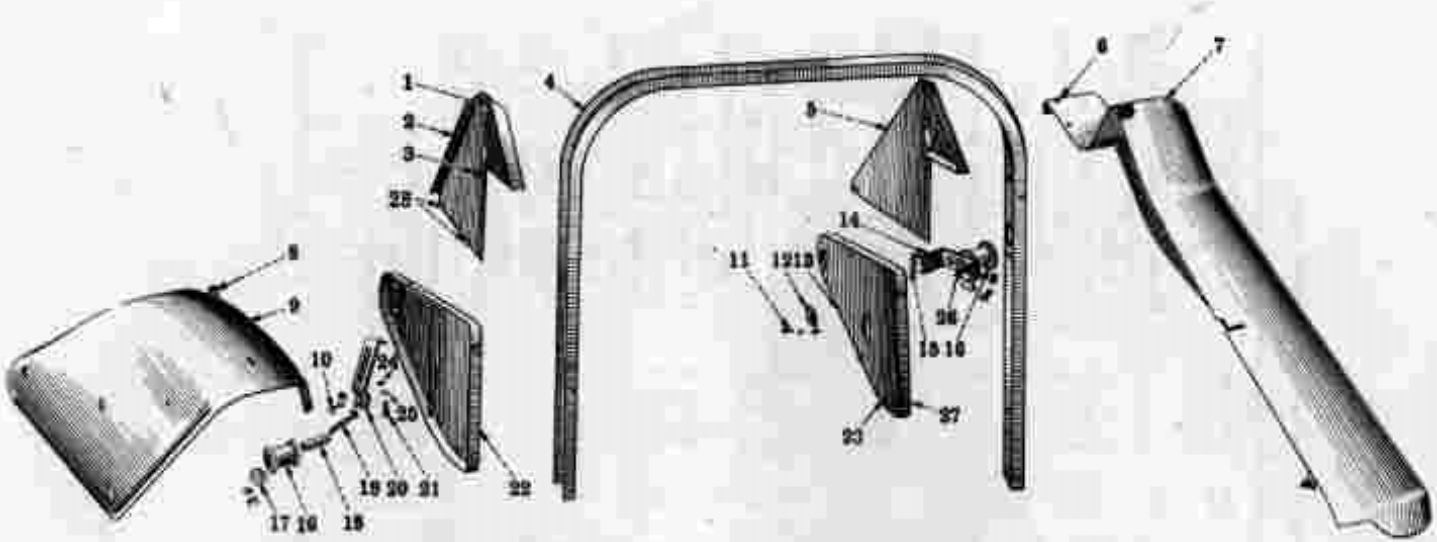
Unnumbered parts in the illustrations are the same as corresponding parts shown with numbers.

FRONT END, LEVERS AND DRAWBAR—Continued

Index to Reference Numbers shown in Illustration on opposite page.

Ref. No.	Part No.	DESCRIPTION
1	23573 S	Side sheet support plate, right.
2	.....	Carriage bolt, 5/16 x 1" (with sq. nut and lockwasher).
3	23572 S	Top side angle spacer.
4	23565 S	Feed and chain raising lever rod.
5	23618 S	Cotter, 5/16 x 1".
6	M 92	Feed and chain raising lever spring.
7	Q 134	Washer, 11/16" I.D. x 1 1/16" O.D. x 16 ga.
8	.....	Cotter, 1/4 x 3/4".
9	23570 S	Front end gate.
10	23566 S	Feed and chain raising lever clip.
11	.....	Machine bolt, 3/8 x 1 1/4" (with sq. nut and lockwasher).
12	23567 S	Control rod guide.
13	119 512	Lubrication fitting, 1/4", straight.
14	23423 SB	Apron chain tightener, left, cp.
15	23574 S	Side sheet support plate, left.
16	.....	Machine bolt, 3/8 x 3/4" (with sq. nut and lockwasher).
17	.....	Machine bolt, 3/8 x 1" (with sq. nut, lockwasher and Q 108 washer).
18	.....	Square nut, 3/4".
19	23422 SB	Apron chain tightener, right, cp.
20	Q 333	Washer, 9/16" I.D. x 1 1/4" O.D. x 20 ga.
21	3323 S	Front apron sprocket.
22	.....	Cotter, 3/16 x 1 1/4".
23	3331 S	Control lever crank bearing.
24	.....	Machine bolt, 5/16 x 3 1/4" (with sq. nut and lockwasher).
25	23563 S	Feed lever crank, cp.
26	23571 S	Control lever crank bearing reinforcement.
27	23557 S	Feed lever quadrant.
28	.....	Cotter, 3/4 x 1 3/4".
29	23558 S	Chain raising lever quadrant.
30	.....	Machine bolt, 5/16 x 1" (with sq. nut and lockwasher).
31	23564 S	Chain raising lever crank, cp.
32	.....	Carriage bolt, 3/8 x 1 5/8" (with sq. nut and lockwasher).
33	23551 S	Drawbar member, left.
34	.....	Carriage bolt, 3/8 x 1 5/8" (with sq. nut and lockwasher).
35	23550 S	Drawbar member, right.
36	23553 S	Drawbar brace, rear.
37	.....	Carriage bolt, 3/8 x 1 1/2" (with sq. nut and lockwasher).
38	23552 S	Drawbar brace, front.
39	.....	Machine bolt, 3/8 x 1 3/4" (with sq. nut and lockwasher).
40	.....	Machine bolt, 3/8 x 4 1/2" (with sq. nut and lockwasher).
41	23549 SA	Drawbar clevis, cp.
42	.....	Cotter, 5/16 x 3/4".
43	Q 109	Washer, 1/2" I.D. x 1 1/4" O.D. x 16 ga.
44	.....	Machine bolt, 1/2 x 1 1/2" (with sq. nut and lockwasher).

When ordering, always use Part Nos



Unnumbered parts in the illustrations are the same as corresponding parts shown with numbers.

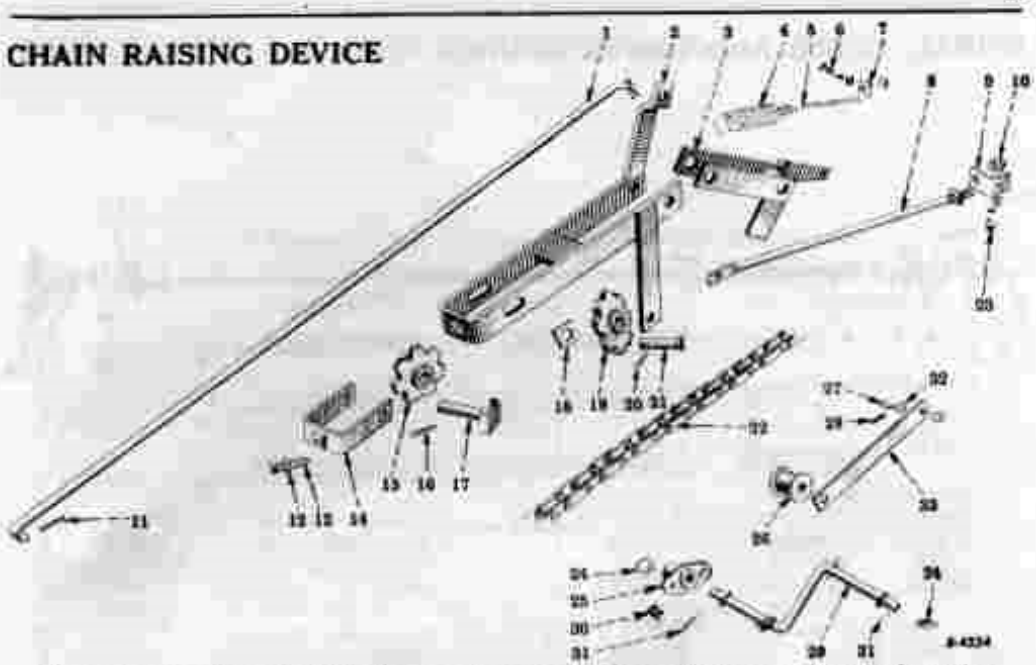
Ref. No.	Part No.	DESCRIPTION
1	.....	Carriage bolt, ⅜ x ⅝" (with sq. nut and lockwasher).
2	23600 S	Upper cylinder guard, right.
3	.....	Carriage bolt, ⅜ x ¾" (with sq. nut and lockwasher).
4	23599 S	Rear arch.
5	23601 S	Upper cylinder guard, left.
6	.....	Slotted head screw, ¼ x ½".
7	23666 SA	Chain raising shield, cp.
8	.....	Slotted head screw, ¼ x ½".
9	23663 S	Ratchet shield, cp.
10	.....	Machine bolt, ½ x 1".
11	.....	Machine bolt, ⅛ x ⅜".
12	23915 S	Spiral shaft bearing stop.
13	23607 SB	Rear side sheet, left, ep.
14	23658 S	Cylinder chain tightener bracket.
15	.....	Machine bolt, ⅜ x ⅞" (with sq. nut and lockwasher)

Ref. No.	Part No.	DESCRIPTION
16	3129 S	Chain tightener roller.
17	Q 1516	Washer, ½" I.D. x 1" O.D. x 14 ga.
18	23527 S	Chain tightener roller spacer.
19	.....	Carriage bolt, ⅛ x 3½" (with sq. nut and lockwasher).
20	23671 SA	Spiral chain tightener bracket, ep.
21	.....	Machine bolt, ⅜ x 1" (no nut).
22	23606 SB	Rear side sheet, right, ep.
23	.....	Machine bolt, ⅜ x ⅞" (with sq. nut and lockwasher)
24	.....	Lockwasher, ½".
25	Q 168	Washer, ⅛" I.D. x 1" O.D. x 16 ga.
26	.....	Machine bolt, ⅛ x 3½" (with sq. nut, Q 1516 washer and lockwasher).
27	.....	Machine bolt, ¾ x ¾" (with sq. nut and lockwasher).
28	.....	Carriage bolt ⅛ x ½".

When ordering, always use Part Nos

Don't order parts from the illustrations only; refer to the list also.

CHAIN RAISING DEVICE



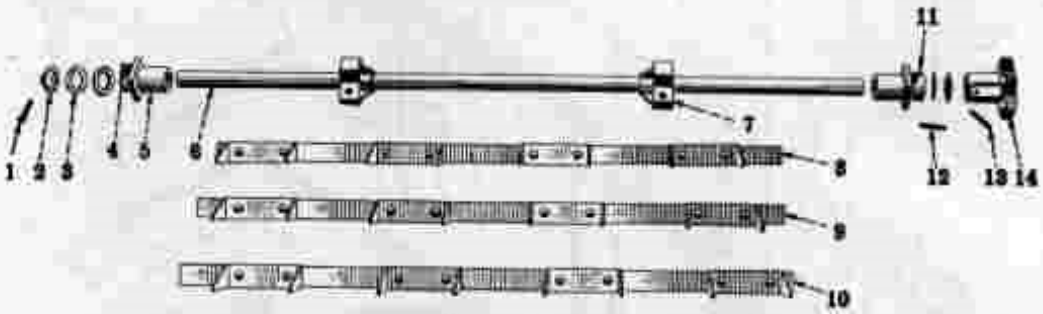
Unnumbered parts in the illustrations are the same as corresponding parts shown with numbers.

Ref. No.	Part No.	DESCRIPTION
1	23569 S	Chain raising control rod.
2	23640 SB	Chain raising yoke, cp.
3	23636 SA	Idler yoke arm, cp.
4	23084 S 23903 S	Idler yoke arm return spring. Spring and eye-bolt, complete.
5	23888 S	Spring adjustment eye-bolt.
6	.....	Machine bolt, 5/16 x 3/4" (with sq. nut and lockwasher).
7	23632 S	Spring adjuster bracket.
8	23646 S	Chain raising yoke brace.
9	25647 S	Yoke brace bracket.
10	.....	Square nut, 3/8".
11	.....	Cotter, 1/8 x 1".
12	.....	Hexagon nut, 1/4".
13	.....	Set screw, 1/4 x 2 1/4" (cup point).
14	23642 SA	Main chain adjuster yoke, cp.
15	3348 SA	Idler sprocket, 7 teeth.
16	.....	Cotter, 1/4 x 1 1/2".
17	23645 S	Main chain front idler pin, cp.
18	23542 S	Idler sprocket pin end washer.
19	3347 SA	Idler sprocket, 8 teeth.
20	.....	Cotter, 1/4 x 1 3/4".
21	Q 1237	Pin, 3/4 x 2 1/2".
22	23682 S	Main drive chain, 103 1/2" long, cp.
23	.....	Carriage bolt, 5/16 x 1" (with sq. nut and lockwasher).
24	Q 112	Washer, 11/16 x 1 1/4" x 16 ga.
25	3362 S	Bearing.
26	645 S	Roller.
27	M 909	Pin, 3/4 x 3/4".
28	.....	Cotter, 1/8 x 3/4".
29	23943 S	Crank.
30	.....	Machine bolt, 3/8 x 1".
31	.....	Cotter, 1/8 x 1 1/4".
32	Q 105	Washer, 11/64 x 1/2" x 16 ga.
33	23944 S	Connecting link.

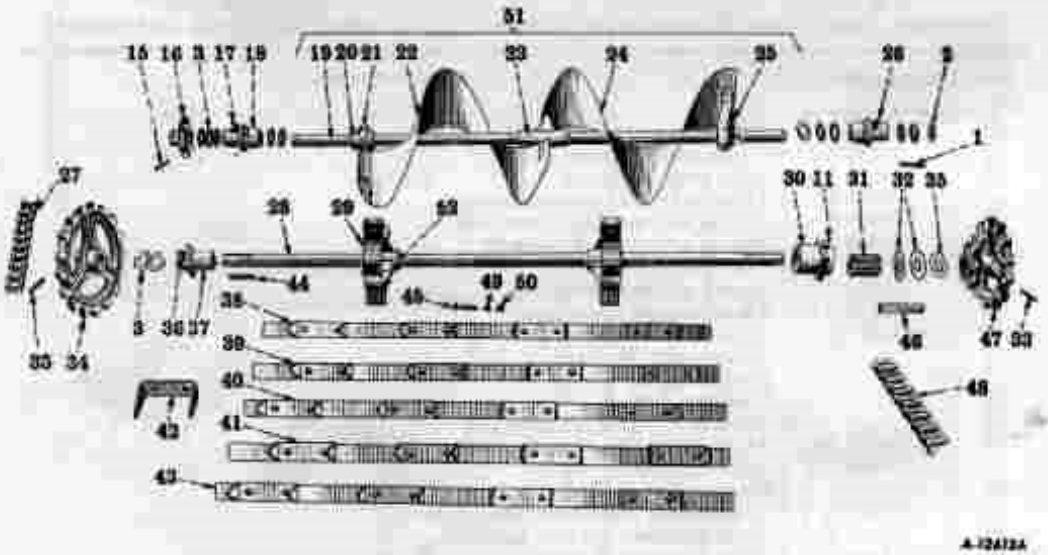
When ordering, always use Part Nos.

Don't order parts from the illustrations only; refer to the list also.

SPIRAL; UPPER AND LOWER BEATER



Upper Beater



Lower Beater and Spiral

Unnumbered parts in the illustrations are the same as corresponding parts shown with numbers

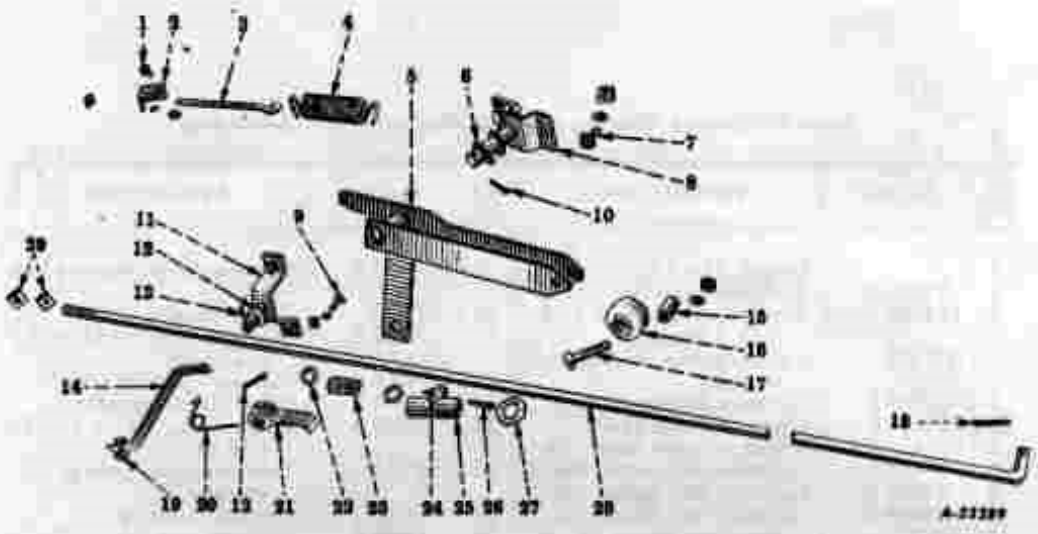
SPIRAL; UPPER AND LOWER BEATER—Continued

Index to Reference Numbers shown in illustration on opposite page

Ref. No.	Part No.	DESCRIPTION
1	.....	Cotter, ⅛ x 1¾".
2	23616 S	End shaft washer.
3	Q 5036	Washer, 1 1/32" I.D. x 1¾" O.D. x 16 ga.
4	119 512	Lubrication fitting, ⅛", straight.
5	3339 S	Cylinder bearing.
6	23649 S	Upper cylinder shaft.
7	450 873 R1	Upper cylinder head.
8	23686 S	Cylinder rail, upper, No. 3
9	23685 S	Cylinder rail, upper, No. 2.
10	23684 S	Cylinder rail, upper, No. 1.
11	109 353	Lubrication fitting, ⅛", 30° elbow.
12	33027 S	Key, ¼ x ¼ x 1 13/16" (with Q 5123 thread cutting screw).
13	12805 L	"Groov" pin, ⅜ x 1¾".
14	3338 S	Upper cylinder driven sprocket, 6 teeth.
15	19249 C	"Groov" pin, ⅛ x 1¾".
16	3320 S	Spiral driven sprocket.
17	109 350	Lubrication fitting, ⅛", 90° elbow.
18	3321 SA	Spiral shaft bearing.
19	23657 S	Spiral shaft.
20	3350 S	Outer bracket, right.
21	.....	Carriage bolt, ⅛ x 2¼".
22	23677 S	Spiral, right.
23	3352 S	Center bracket.
24	23678 S	Spiral, left.
25	3351 S	Outer bracket, left.
26	109 350	Lubrication fitting, ⅛", 90° elbow.
27	LB 332	Spiral drive chain (30 No. 55 steel links).
28	23653 S	Lower cylinder shaft.
29	3336 S	Lower cylinder head.
30	3337 S	Lower cylinder bearing box, left.
31	ST 175	Roller bearing.
32	23671 S	Washer, 1 1/32" I.D. x 2⅜" O.D. x ⅛".
33	14568 L	"Groov" pin, ⅜ x 1⅝".
34	3335 S	Spiral drive sprocket.
35	23670 S	Washer, 1 1/32" I.D. x 2" O.D. x 16 ga.
36	119 512	Lubrication fitting, ⅛", straight.
37	3339 S	Cylinder bearing
38	23689 S	Cylinder rail, lower, No. 5.
39	23688 S	Cylinder rail, lower, No. 2 and No. 4.
40	23687 S	Cylinder rail, lower, No. 1 and No. 3.
41	23688 S	Cylinder rail, lower, No. 2 and No. 4
42	23425 S	Cylinder tooth.
43	23687 S	Cylinder rail, lower, No. 1 and No. 3.
44	33028 S	Key, ¼ x ¼ x 1 13/16" (with Q 5123 thread cutting screw).
45	.....	Machine bolt, ⅜ x 1¾" (with sq. nut and lockwasher).
46	33029 S	Key, ¼ x ¼ x 3¼" (with Q 5123 thread cutting screw).
47	3334 SA	Lower cylinder sprocket.
48	14244 L	Cylinder drive chain (32 No. 62 steel links).
49	.....	Lockwasher, ⅜".
50	.....	Square nut, ⅜".
51	23700 S	Spiral, cp.
52	142 535	"Groov" pin, ⅛ x 2".

When ordering, always use Part Nos.

FEED DEVICE



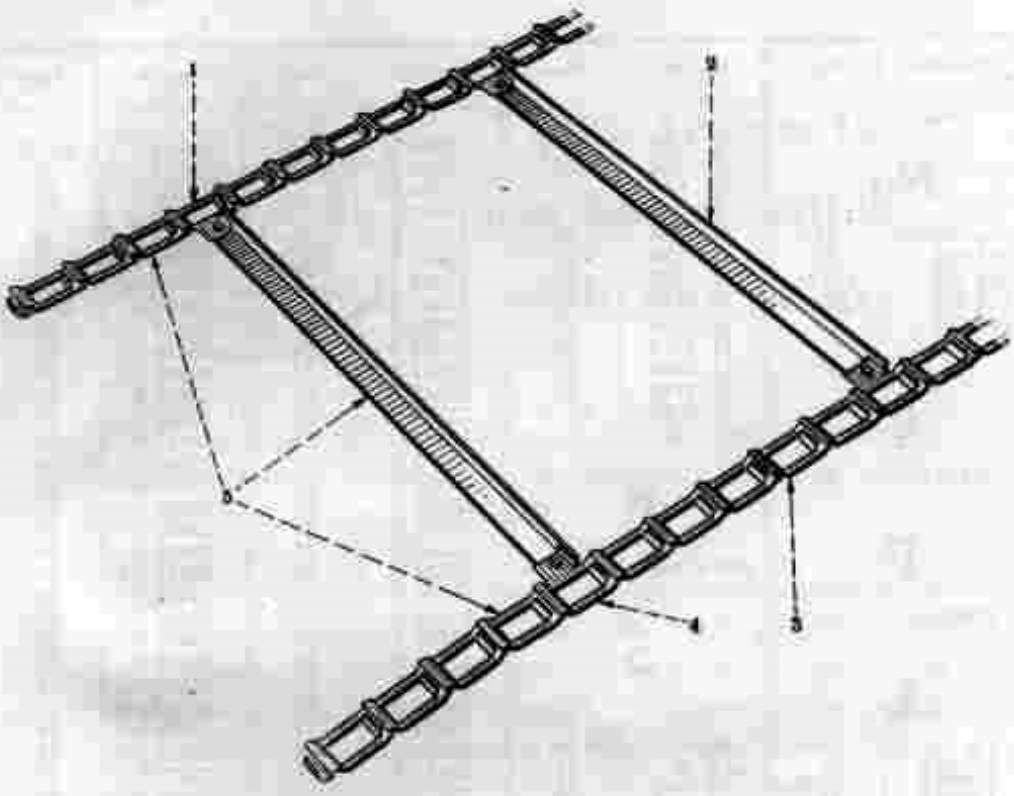
Unnumbered parts in the illustrations are the same as corresponding parts shown with numbers.

Ref. No.	Part No.	DESCRIPTION	Ref. No.	Part No.	DESCRIPTION
1	.....	Machine bolt, 3/8 x 3/4" (with sq. nut and lockwasher).	15	13537 S	Feed cam arm roller bushing.
2	23632 S	Spring adjuster bracket.	16	3205 SA	Feed cam arm roller.
3	23888 S	Spring adjustment eyebolt.	17	.....	Carriage bolt, 1/2 x 3" (with sq. nut and lockwasher).
4	23084 S 23903 S	Feed cam arm return spring. Spring and eyebolt, complete.	18	.....	Cotter, 3/16 x 1".
5	23625 S	Feed roller arm.	19	.....	Machine bolt, 3/8 x 3/4" (with sq. nut and lockwasher).
6	Q 175	Washer, 11/16" I.D. x 1 3/4" O.D. x 18 ga.	20	23883 SA	Ratchet stop pawl spring.
7	.....	Machine bolt, 5/16 x 1 3/4" (with sq. nut and lockwasher).	21	13002 S	Ratchet pawl.
			22	Q 110	Washer, 5/8" I.D. x 1 3/4" O.D. x 14 ga.
			23	23612 S	Feed roll adjuster spring.
8	23628 S	Feed roller arm bracket, cp.	24	109 350	Lubrication fitting, 1/8", 67 1/2° elbow.
9	.....	Carriage bolt, 5/16 x 1" (with sq. nut and lockwasher).	25	3330 S	Feed rod swivel.
10	.....	Cotter, 1/4 x 1 3/4".	26	.....	Cotter, 1/4 x 1 1/4".
11	23630 S	Ratchet stop pawl bracket, cp.	27	Q 296	Washer, 31/32" I.D. x 1 3/4" O.D. x 16 ga.
12	Q 135	Washer, 31/32" I.D. x 31/32" O.D. x 22 ga.	28	23568 S	Feed rod.
13	.....	Cotter, 3/16 x 1".	29	105 609	Square nut, 5/16".
14	23631 S	Ratchet stop pawl bracket brace.			

When ordering, always use Part Nos.

Don't order parts from the illustrations only; refer to the list also

APRON



Unnumbered parts in the illustrations are the same as corresponding parts shown with numbers

Ref. No.	Part No.	DESCRIPTION
1	SB-R	Attachment link.
2	23659 SA	Apron chain bar.
3	"S"	Chain link.
4	SB-L	Attachment link.
5	23681 SA	Apron, cp.

When ordering, always use Part Nos.

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Farm Accidents can be prevented with your help

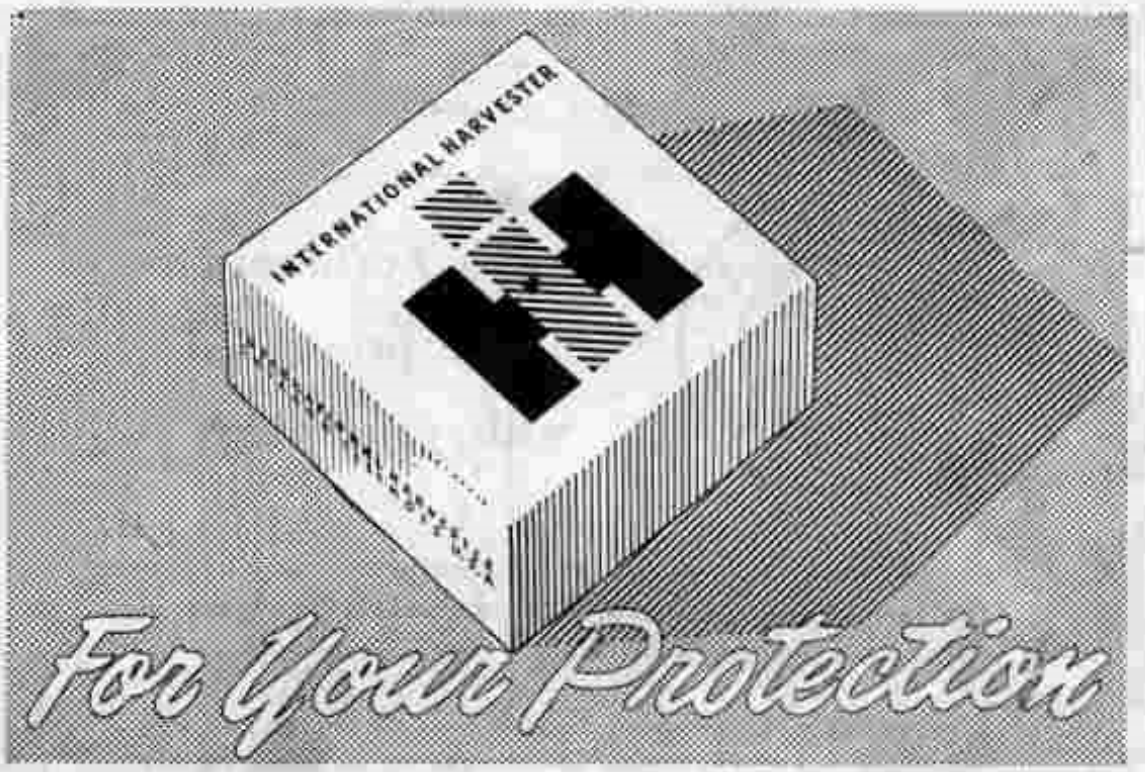
No accident-prevention program can be successful without the whole-hearted co-operation of the person who is directly responsible for the operation of equipment.

To read accident reports from all over the country is to be convinced that a large number of accidents can be prevented only by the operator anticipating the result before the accident is caused and doing something about it. No power-driven equipment, whether it be transportation or processing, whether it be on the highway, in the harvest field or in the industrial plant, can be safer than the man who is at the controls. If farm accidents are to be prevented—and they can be prevented—it will be done by the operators who accept a full measure of their responsibility.

It is true that the designer, the manufacturer, the safety engineer can help; and they will help, but their combined efforts can be wiped out by a single careless act of the operator.

It is said that ***"the best kind of a safety device is a careful operator."*** We ask you to be that kind of an operator.

NATIONAL SAFETY COUNCIL



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